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Separation Science

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Implementing Robustness Testing for HPLC Methods
This is the second article in a series about robustness testing for HPLC analytical methods. Previously, an overview of the steps involved in investigation of robustness was described. The first step is to decide which factors are going to be studied. In this article the selection of appropriate robustness factors and factor levels relating to the mobile phase will be discussed and in particular, the volume fraction of the organic solvent in the mobile phase for reversed phase HPLC.
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Method Transfer and Routine-Use Study of the USP Impurities Method for Donepezil Tablets
In this article we investigate some of the sample-matrix related issues encountered when transferring a long drug final formulation separation method to a faster, more sustainable LC method. The geometrically-scaled gradient method presented in this article is 80% faster than the original compendial HPLC method and consumes 92% less mobile phase.
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How to Analyse Unknown Samples by Pyrolysis GC/MS?
Although GC/MS and LC/MS are very powerful analytical techniques, they generally lack the ability to analyse and characterize insoluble materials, such as polymers and other high molecular weight products. An elegant approach to cope with this type of samples involves a combination of thermal decomposition and online chromatographic analysis of the released breakdown products. This approach is called analytical pyrolysis.
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How Fittings Can Impact Chromatographic Results
Anyone who has been involved in chromatography has likely struggled with things like band broadening, split peaks, carryover, and loss of sample. Typically, when these challenges are encountered, it's normal for chromatographers to suspect degradation of the column's stationary phase or issues with the mobile phase, or even mechanical problems with primary system components (e.g., the injection valve, the pump, etc.). However, after investing hours and precious financial resources towards "fixing" or replacing the suspected components, it's entirely possible that the initial challenges may still be present, leaving many a chromatographer puzzled and frustrated.
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Rapid Quantitation and Identification of Carbendazim in Orange Juice using LC-MS/MS
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Company: Waters

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Resolution
Tailing Comparisons
Regeneration
Silica Purity - Metals
Silica Purity - Silanols
Endcapping
Tailing

GC ARTICLES
Calibration Curves
GC Ferrules
Stationary Phase Selectivity
Polar Interactions
Non-Polar Interactions

MS ARTICLES
Nist 11: Part 5
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Nist 11: Part 3
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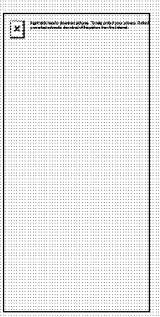
Nist 11: Part 1
Improving Electrospray LODs by Decreasing Column Diameter
Dealing with Metal Adduct Ions in Electrospray, Part 1!
Dealing with Metal Adduct



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